Project Design Phase-I
Proposed Solution

Date	13 October 2022
Team ID	PNT2022TMID52484
Project Name	Fertilizers Recommendation System For Disease Prediction
Maximum Marks	2 Marks

Proposed Solution:

Project team shall fill the following information in proposed solution template.

S. No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	• Plants are affected by a wide variety of bacterial and fungal diseases. Diseases on plants placed a major constraint on the production and a major threat to food security. Hence, early and accurate identification of plant diseases is essential to ensure high quantity and best quality. In recent years, the number of diseases on plants and the degree of harm caused has increased due to the variation in pathogen varieties, changes in cultivation methods, and inadequate plant protection techniques. An automated system is introduced to identify different diseases on plants by checking the symptoms shown on the leaves of the plant. Deep learning techniques are used to identify the diseases and suggest the precautions that can be taken for those diseases.
2.	Idea / Solution description	• An automated system is built that takes the input as picture of leaves which is uploaded by the user, identifies different diseases on plants by checking the symptoms shown on the leaves of the plant. Deep learning techniques are used to identify the diseases and suggest the fertilizer needed for the plant.
3.	Novelty / Uniqueness	• Automatic detection of plant diseases using deep learning models.
4.	Social Impact / Customer Satisfaction	• Providing information about the nearby fertilizer store. • Providing web sites about the availability of fertilizer that is being recommend get remedy for the disease. • Providing additional information about the plant.

5.	Business Model (Revenue Model)	• Collaboration with fertilizer vendors. • Providing solutions for farmer's problem. Increase in crop productivity.
6.	Scalability of the Solution	• For scalability, the recommendations will be disseminated through information and communication technology channels, primarily mobile phones. Bridging information gaps through communication technology channels can overcome the problem of access to trained personnel, making knowledge more widely available.